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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,014	09/18/2006	Kinya Takagaki	NANP136US	3150
23623 7590 03/26/2008 AMIN, TUROCY & CALVIN, LLP 1900 EAST 9TH STREET, NATIONAL CITY CENTER 24TH FLOOR, CLEVELAND, OH 44114				
EXAMINER MI, QIUWEN				
ART UNIT 1655		PAPER NUMBER		
NOTIFICATION DATE 03/26/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

doctet1@thepatentattorneys.com  
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**Office Action Summary****Application No.**

10/599,014

**Applicant(s)**

TAKAGAKI ET AL.

**Examiner**

QIUWEN MI

**Art Unit**

1655

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's amendment in the reply filed on 12/12/07 is acknowledged. Any rejection that is not reiterated is hereby withdrawn.

### **Claims Pending**

Claims 1-11 are pending. Claims 1-11 are examined on the merits.

### **Claim Objections**

Claim 9 is objected to because of the following informalities: Claim 1 recites "Pinus martima" in line 2, and the latin name of the plant should be italicized. Appropriate correction is required.

### **Claim Rejections –35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hersh (US 5,906,811), in view of Ishida et al (US 2002/0068103 A1), as evidenced by Thomas et al (US 6,329,414 B1)\*.

Hersh teaches intra-oral sprays (comprising a solvent) include proanthocyanidins (20 mgs per day) from pine bark (extract) or grape seeds (col 19, lines 1-5).

Hersh does not teach the concentration of the pine bark extract is at least 0.2 g/L, the claimed amount of oligomeric proanthocyanidins, degree of polymerization, flavan-3-ol or flavan-3,4-diol, or French maritime pine (*Pinus maritima*).

Ishida et al teach that proanthocyanidins are a group of condensation or polymerization compounds comprising, as a constituent unit, flavan-3-ol or flavane-3,4-diol. Proanthocyanidins include procyanidin, prodelphinidin, propelargonidin, and the like which may be oligomers made up of two, three or four units or polymers made up to ten or more units, and stereoisomers thereof. They are obtained by extracting various plant parts, such as pine trees [0013].

As evidenced by Thomas et al, oligomeric proanthocyanidins occur in most plants, the most feasible commercial source is the seeds of grapes and the bark of the French Maritime pine (col 8, lines 37-47). Flavanols, including OPC's, are always made up of polymers of one compound called "flavan-3-ol", while bioflavonoids are made up of many different compounds with a "flavane" nucleus (col 8, lines 53-55).

It would have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use the concentration of at least 0.2 g/L for the pine bark extract or the claimed amount of oligomeric proanthocyanidins in the oral care composition, as one would be motivated to vary the amount of oligomeric proanthocyanidins according to the oral condition that is needed to be taken care of. The result-effective adjustment in conventional working parameters is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan, which depends on oral cavity conditions. Since the composition yielded beneficial results in oral care products, one of ordinary skill in the art would have been motivated to make the modifications.

It would also have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use the oligomeric proanthocyanidins with 2-4 degree of polymerization, since the one of the ordinary skills in the art would recognize the claimed degree of polymerization of the proanthocyanidins being present in the pine bark extract, polymerization and depolymerization of oligomeric proanthocyanidins to the desired length of the polymer chain is well within the purview of the skilled artisan.

The intended use of the composition was analyzed for patentable weight. It is deemed that the preamble 'breathes life' into the claims in that the prior art product must not be precluded for use for oral cavity care, including periodontal diseases or halitosis. It is deemed that the composition disclosed by Hersh is not precluded for carrying out the intended function of the claims.

From the teachings of the references, it is apparent that one of the ordinary skills in the art would have had a reasonable expectation of success in producing the claimed invention.

Thus, the invention as a whole is *prima facie* obvious over the references, especially in the absence of evidence to the contrary.

\*This reference is cited merely to relay an intrinsic property and is not used in the basis for rejection *per se*.

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### Conclusion

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qiuwen Mi whose telephone number is 571-272-5984. The examiner can normally be reached on 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Qiuwen Mi

/Patricia Leith/

Primary Examiner, Art Unit 1655